RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number: 10/787,219 A

Source: I two

Date Processed by STIC: 10/29/04

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RAW SEQUENCE LISTING   DATE: 10/29/2004
PATENT APPLICATION: US/10/787,219A   TIME: 12:42:39

Input Set : **A:\248628US0X.txt**
Output Set: **N:\CRF4\10292004\J787219A.raw**

```
 3 <110> APPLICANT: JESTIN, JEAN-LUC
 4        VICHIER-GUERRE, SOPHIE
 6 <120> TITLE OF INVENTION: METHODS FOR OBTAINING THERMOSTABLE ENZYMES, DNA POLYMERASE I
 7        VARIANTS FROM THERMUS AQUATICUS HAVING NEW CATALYTIC ACTIVITIES,
 8        METHODS FOR OBTAINING THE SAME, AND APPLICATIONS OF THE SAME
10 <130> FILE REFERENCE: 248628USOX
12 <140> CURRENT APPLICATION NUMBER: 10/787,219A
13 <141> CURRENT FILING DATE: 2004-02-27
15 <160> NUMBER OF SEQ ID NOS: 61
17 <170> SOFTWARE: PatentIn version 3.3
19 <210> SEQ ID NO: 1
20 <211> LENGTH: 24
21 <212> TYPE: DNA
22 <213> ORGANISM: Artificial Sequence
24 <220> FEATURE:
25 <223> OTHER INFORMATION: Synthetic DNA
27 <400> SEQUENCE: 1
28 taacaatagg ccggccaccc cttc                                    24
31 <210> SEQ ID NO: 2
32 <211> LENGTH: 18
33 <212> TYPE: DNA
34 <213> ORGANISM: Artificial Sequence
36 <220> FEATURE:
37 <223> OTHER INFORMATION: Synthetic DNA
39 <400> SEQUENCE: 2
40 gagtttttgt tctgcggc                                           18
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44 <211> LENGTH: 27
45 <212> TYPE: DNA
46 <213> ORGANISM: Artificial Sequence
48 <220> FEATURE:
49 <223> OTHER INFORMATION: Synthetic DNA
51 <400> SEQUENCE: 3
52 tttaatcatc tgcagtaccg ggagctc                                 27
55 <210> SEQ ID NO: 4
56 <211> LENGTH: 28
57 <212> TYPE: DNA
58 <213> ORGANISM: Artificial Sequence
60 <220> FEATURE:
61 <223> OTHER INFORMATION: Synthetic DNA
63 <400> SEQUENCE: 4
64 ttcattcttg ctagctcctg ggagaggc                                28
67 <210> SEQ ID NO: 5
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(PJ.IC)

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PATENT APPLICATION: US/10/787,219A   TIME: 12:42:39

Input Set : **A:\248628USOX.txt**
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 68 <211> LENGTH: 43
 69 <212> TYPE: DNA
 70 <213> ORGANISM: Artificial Sequence
 72 <220> FEATURE:
 73 <223> OTHER INFORMATION: Synthetic DNA
 76 <220> FEATURE:
 77 <221> NAME/KEY: misc_feature
 78 <222> LOCATION: (15)..(15)
 79 <223> OTHER INFORMATION: n represents the following sequences in a 1:1 relative
abundance:
 80   C and A, in the trimer sequence CAR and AVY, respectively
 82 <220> FEATURE:
 83 <221> NAME/KEY: misc_feature
 84 <222> LOCATION: (16)..(16)
 85 <223> OTHER INFORMATION: n represents the following sequences in a 1:1 relative
abundance:
 86   A and V, in the trimer sequence CAR and AVY, respectively
 88 <220> FEATURE:
 89 <221> NAME/KEY: misc_feature
 90 <222> LOCATION: (17)..(17)
 91 <223> OTHER INFORMATION: n represents the following sequences in a 1:1 relative
abundance:
 92   R and Y, in the trimer sequence CAR and AVY, respectively
 94 <220> FEATURE: .
 95 <221> NAME/KEY: misc_feature
 96 <222> LOCATION: (24)..(24)
 97 <223> OTHER INFORMATION: n represents the following sequences in a 1:1 relative
abundance:
 98   C and A, in the trimer sequence CAR and AVY, respectively
100 <220> FEATURE:
101 <221> NAME/KEY: misc_feature
102 <222> LOCATION: (25)..(25)
103 <223> OTHER INFORMATION: n represents the following sequences in a 1:1 relative
abundance:
104   A and V, in the trimer sequence CAR and AVY, respectively
106 <220> FEATURE:
107 <221> NAME/KEY: misc_feature
108 <222> LOCATION: (26)..(26)
109 <223> OTHER INFORMATION: n represents the following sequences in a 1:1 relative
abundance:
110   R and Y, in the trimer sequence CAR and AVY, respectively
112 <400> SEQUENCE: 5
W--> 113 ccggccaccc cttcnnnctc aacnnncggg accagctgga aag   43
116 <210> SEQ ID NO: 6
117 <211> LENGTH: 65
118 <212> TYPE: DNA
119 <213> ORGANISM: Artificial Sequence
121 <220> FEATURE:
122 <223> OTHER INFORMATION: Synthetic DNA
125 <220> FEATURE:
126 <221> NAME/KEY: misc_feature
127 <222> LOCATION: (17)..(17)
128 <223> OTHER INFORMATION: n represents the following sequences in a 1:1 relative

abundance:
    129   Y and R, in the trimer sequence YTG and RBT, respectively
    131 <220> FEATURE:

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Input Set : A:\248628US0X.txt
Output Set: N:\CRF4\10292004\J787219A.raw

    132 <221> NAME/KEY: misc_feature
    133 <222> LOCATION: (18)..(18)
    134 <223> OTHER INFORMATION: n represents the following sequences in a 1:1 relative
abundance:
    135   T and B, in the trimer sequence YTG and RBT, respectively
    137 <220> FEATURE:
    138 <221> NAME/KEY: misc_feature
    139 <222> LOCATION: (19)..(19)
    140 <223> OTHER INFORMATION: n represents the following sequences in a 1:1 relative
abundance:
    141   G and T, in the trimer sequence YTG and RBT, respectively
    143 <220> FEATURE:
    144 <221> NAME/KEY: misc_feature
    145 <222> LOCATION: (20)..(20)
    146 <223> OTHER INFORMATION: n represents the following sequences in a 1:1 relative
abundance:
    147   Y and R, in the trimer sequence YTG and RBT, respectively
    149 <220> FEATURE:
    150 <221> NAME/KEY: misc_feature
    151 <222> LOCATION: (21)..(21)
    152 <223> OTHER INFORMATION: n represents the following sequences in a 1:1 relative
abundance:
    153   T and B, in the trimer sequence YTG and RBT, respectively
    155 <220> FEATURE:
    156 <221> NAME/KEY: misc_feature
    157 <222> LOCATION: (22)..(22)
    158 <223> OTHER INFORMATION: n represents the following sequences in a 1:1 relative
abundance:
    159   G and T, in the trimer sequence YTG and RBT, respectively
    161 <220> FEATURE:
    162 <221> NAME/KEY: misc_feature
    163 <222> LOCATION: (26)..(26)
    164 <223> OTHER INFORMATION: n represents the following sequences in a 1:1 relative
abundance:
    165   Y and R, in the trimer sequence YTG and RBT, respectively
    167 <220> FEATURE:
    168 <221> NAME/KEY: misc_feature
    169 <222> LOCATION: (27)..(27)
    170 <223> OTHER INFORMATION: n represents the following sequences in a 1:1 relative
abundance:
    171   T and B, in the trimer sequence YTG and RBT, respectively
    173 <220> FEATURE:
    174 <221> NAME/KEY: misc_feature
    175 <222> LOCATION: (28)..(28)
    176 <223> OTHER INFORMATION: n represents the following sequences in a 1:1 relative
abundance:
    177   G and T, in the trimer sequence YTG and RBT, respectively
    179 <220> FEATURE:
    180 <221> NAME/KEY: misc_feature
    181 <222> LOCATION: (44)..(44)
    182 <223> OTHER INFORMATION: n represents the following sequences in a 1:1 relative
abundance:
    183   Y and R, in the trimer sequence YTG and RBT, respectively

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185  <220>  FEATURE:
186  <221>  NAME/KEY: misc_feature
187  <222>  LOCATION: (45)..(45)
188  <223>  OTHER INFORMATION: n represents the following sequences in a 1:1 relative
abundance:
189         T and B, in the trimer sequence YTG and RBT, respectively
```

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     191 <220> FEATURE:
     192 <221> NAME/KEY: misc_feature
     193 <222> LOCATION: (46)..(46)
     194 <223> OTHER INFORMATION: n represents the following sequences in a 1:1 relative
abundance:
     195       G and T, in the trimer sequence YTG and RBT, respectively
     197 <400> SEQUENCE: 6
W--> 198 ggatgaggtc cggcaannnn nnaatnnngg tgctcttcag cttnnngagc tcccggtact        60
     200 gcagg                                                                   65
     203 <210> SEQ ID NO: 7
     204 <211> LENGTH: 62
     205 <212> TYPE: DNA
     206 <213> ORGANISM: Artificial Sequence
     208 <220> FEATURE:
     209 <223> OTHER INFORMATION: Synthetic DNA
     212 <220> FEATURE:
     213 <221> NAME/KEY: misc_feature
     214 <222> LOCATION: (17)..(17)
     215 <223> OTHER INFORMATION: n represents the following sequences in a 1:1 relative
abundance:
     216       C and A, in the trimer sequence CAR and AVY, respectively
     218 <220> FEATURE:
     219 <221> NAME/KEY: misc_feature
     220 <222> LOCATION: (18)..(18)
     221 <223> OTHER INFORMATION: n represents the following sequences in a 1:1 relative
abundance:
     222       A and V, in the trimer sequence CAR and AVY, respectively
     224 <220> FEATURE:
     225 <221> NAME/KEY: misc_feature
     226 <222> LOCATION: (19)..(19)
     227 <223> OTHER INFORMATION: n represents the following sequences in a 1:1 relative
abundance:
     228       R and Y, in the trimer sequence CAR and AVY, respectively
     230 <220> FEATURE:
     231 <221> NAME/KEY: misc_feature
     232 <222> LOCATION: (32)..(32)
     233 <223> OTHER INFORMATION: n represents the following sequences in a 1:1 relative
abundance:
     234       C and A, in the trimer sequence CAR and AVY, respectively
     236 <220> FEATURE:
     237 <221> NAME/KEY: misc_feature
     238 <222> LOCATION: (33)..(33)
     239 <223> OTHER INFORMATION: n represents the following sequences in a 1:1 relative
abundance:
     240       A and V, in the trimer sequence CAR and AVY, respectively
     242 <220> FEATURE:
     243 <221> NAME/KEY: misc_feature
     244 <222> LOCATION: (34)..(34)
     245 <223> OTHER INFORMATION: n represents the following sequences in a 1:1 relative
abundance:
     246       R and Y, in the trimer sequence CAR and AVY, respectively
     248 <220> FEATURE:
     249 <221> NAME/KEY: misc_feature
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250 <222> LOCATION: (41)..(41)
251 <223> OTHER INFORMATION: n represents the following sequences in a 1:1 relative abundance:
252   C and A, in the trimer sequence CAR and AVY, respectively

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Input Set : A:\248628US0X.txt
Output Set: N:\CRF4\10292004\J787219A.raw

    254 <220> FEATURE:
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    256 <222> LOCATION: (42)..(42)
    257 <223> OTHER INFORMATION: n represents the following sequences in a 1:1 relative
abundance:
    258   A and V, in the trimer sequence CAR and AVY, respectively
    260 <220> FEATURE:
    261 <221> NAME/KEY: misc_feature
    262 <222> LOCATION: (43)..(43)
    263 <223> OTHER INFORMATION: n represents the following sequences in a 1:1 relative
abundance:
    264   R and Y, in the trimer sequence CAR and AVY, respectively
    266 <400> SEQUENCE: 7
W--> 267 caaccagacg gccacgnnna cgggcaggct annnagctcc nnncccaacc tccagaacat   60
    269 cc   62
    272 <210> SEQ ID NO: 8
    273 <211> LENGTH: 43
    274 <212> TYPE: DNA
    275 <213> ORGANISM: Artificial Sequence
    277 <220> FEATURE:
    278 <223> OTHER INFORMATION: Synthetic DNA
    281 <220> FEATURE:
    282 <221> NAME/KEY: misc_feature
    283 <222> LOCATION: (14)..(14)
    284 <223> OTHER INFORMATION: n represents the following sequences in a 1:1 relative
abundance:
    285   Y and R, in the trimer sequence YTG and RBT, respectively
    287 <220> FEATURE:
    288 <221> NAME/KEY: misc_feature
    289 <222> LOCATION: (15)..(15)
    290 <223> OTHER INFORMATION: n represents the following sequences in a 1:1 relative
abundance:
    291   T and B, in the trimer sequence YTG and RBT, respectively
    293 <220> FEATURE:
    294 <221> NAME/KEY: misc_feature
    295 <222> LOCATION: (16)..(16)
    296 <223> OTHER INFORMATION: n represents the following sequences in a 1:1 relative
abundance:
    297   G and T, in the trimer sequence YTG and RBT, respectively
    299 <220> FEATURE:
    300 <221> NAME/KEY: misc_feature
    301 <222> LOCATION: (23)..(23)
    302 <223> OTHER INFORMATION: n represents the following sequences in a 1:1 relative
abundance:
    303   Y and R, in the trimer sequence YTG and RBT, respectively
    305 <220> FEATURE:
    306 <221> NAME/KEY: misc_feature
    307 <222> LOCATION: (24)..(24)
    308 <223> OTHER INFORMATION: n represents the following sequences in a 1:1 relative
abundance:
    309   T and B, in the trimer sequence YTG and RBT, respectively
    311 <220> FEATURE:
    312 <221> NAME/KEY: misc_feature

313 <222> LOCATION: (25)..(25)

314 <223> OTHER INFORMATION: n represents the following sequences in a 1:1 relative abundance:

315   G and T, in the trimer sequence YTG and RBT, respectively

RAW SEQUENCE LISTING ERROR SUMMARY   DATE: 10/29/2004
PATENT APPLICATION: US/10/787,219A   TIME: 12:42:40

Input Set : A:\248628US0X.txt
Output Set: N:\CRF4\10292004\J787219A.raw

Please Note:
Use of n and/or Xaa have been detected in the Sequence Listing. Please review the
Sequence Listing to ensure that a corresponding explanation is presented in the <220>
to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:5; N Pos. 15,16,17,24,25,26
Seq#:6; N Pos. 17,18,19,20,21,22,26,27,28,44,45,46
Seq#:7; N Pos. 17,18,19,32,33,34,41,42,43
Seq#:8; N Pos. 14,15,16,23,24,25
Seq#:9; N Pos. 20,21,22,38,39,40,44,45,46,47,48,49
Seq#:10; N Pos. 20,21,22,29,30,31,44,45,46
Seq#:11; N Pos. 19,20,21,28,29,30

VERIFICATION SUMMARY   DATE: 10/29/2004
PATENT APPLICATION: **US/10/787,219A**   TIME: 12:42:40

Input Set : **A:\248628US0X.txt**
Output Set: **N:\CRF4\10292004\J787219A.raw**

```
L:113 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:0
L:198 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:0
L:267 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:0
L:318 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:0
L:403 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9 after pos.:0
L:472 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10 after pos.:0
L:528 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11 after pos.:0
```